

from the bottom end of the mounting bar 71 at two opposite sides. A lock pin 73 is inserted into a lock hole 641 on the flanged top end 64 of the back support 6 and a hole (not shown) on the mounting bar 71 to lock the back mattress 7 in position. The headrest unit 8 comprises a head rest 82, and a mounting bar 81 fixedly provided at the back side of the head rest 82 and inserted into the hollow mounting bar 71 of the back mattress 7. The mounting bar 81 of the headrest unit 8 comprises a longitudinal series of lock holes 811 selectively fastened to mounting bar 71 of the back mattress 7 by a lock pin 83.

When in use, the user sits on the seat 4 with the back and the head respectively rested on the mattress body 72 of the back mattress 7 and the headrest 82 of the headrest unit 8, the feet stepped on the footboard 3, and the hands holding the handgrips 711, and the user can then push the legs, and simultaneously force the back and the head downwards to turn the back mattress 7 about the pivot 712 and the back support 6 about the pivot 122, causing the elastic members 50 to be stretched (see FIG. 6). When stretching the elastic members 50, a resisting force is given to the user (see FIG. 6), and therefore the muscles of the back, the head, and the legs are exercised. During exercising, the user can raise one leg and push the other leg against the footboard 32 (see FIG. 7). Alternatively, the user can rest the legs on the footboard 32 with the feet stopped at the front edge 321 of the footboards 32 (see FIG. 8).

Referring to FIGS. 4 and 5, when not in use, the lock pin 73 is removed from the lock hole 641 on the flanged top end 64 of the back support 6 for enabling the back mattress 7 to be turned about the pivot 712 and closely attached to the back support 6, and then the lock pins 15 and 25 are respectively removed from the front base frame 1 and the rear base frame 2, enabling the footboard unit 3 to be turned backwards and closely attached to the main shaft 12 of the front base frame 1 and the seat 4 turned forwards and closely attached to the collapsed footboard unit 3, and then the lock pin 13 is removed from the front base frame 1, enabling the supporting bar 5 to be closely attached to the main shaft 12 of the front base frame 1, and then the back support 6 and the collapsed back mattress 7 are turned downwards and closely attached to the collapsed seat 4,

Referring to FIGS. 9 and 10, two rubber Pull cord members 10 may be installed for pulling with the hands. The rubber pull cord members 10 each have a hook 101 at one end fastened to a respective locating ring 112 at the transverse bar 11, and an opposite end provided with a handle 102 for the holding of the hand.

What is claimed is:

1. A folding collapsible exercising apparatus comprising:

a front base frame, said front base frame comprising a hollow main shaft having a first end and a second end, a transverse bar perpendicularly connected to the first end of said main shaft, a first U-shaped support formed integral with said main shaft at a top side near said transverse bar, a second U-shaped support formed integral with said main shaft at the top side remote from said transverse bar, and two rollers at two opposite ends of said transverse bar, said second U-shaped support comprising two first lock holes and two second lock holes;

a rear base frame inserted into the second end of the main shaft of said front base frame, said rear base frame comprising a longitudinal series of locating holes selectively fastened to said hollow main shaft by a lock pin, a cross bar disposed outside said main shaft, and two

parallel lugs, said parallel lugs having a plurality of locating holes symmetrically disposed at different angles;

a footboard unit coupled to said rear base frame, said footboard unit comprising a footboard, and a stem extended from said footboard at one side and pivoted to said rear base frame;

a first lock pin selectively fastened to the locating holes on the lugs of said rear base frame and a hole on the stem of said footboard unit to lock said footboard unit at the desired angle relative to said rear base frame;

a seat mounted on said main shaft of said front base frame, said seat comprising a seat tube pivoted to said second U-shaped support by a pivot;

a second lock pin inserted into the two second lock holes on the second U-shaped support and a hole on said seat tube to lock said seat in position;

a supporting bar pivoted to said second U-shaped support of said front base frame by a pivot, said supporting bar comprising a lock hole, and two pegs respectively formed integral with two opposite lateral sidewalls thereof;

a third lock pin inserted into the first lock holes on said second U-shaped support of said front base frame and the lock hole on said supporting bar to lock said supporting bar in position;

a back support pivoted to said front base frame and supported on said supporting bar, said back support comprising a bottom end pivoted to said first U-shaped support of said front base frame by a pivot, a flanged top end, and two pegs formed integral with two opposite lateral sidewalls thereof, said flanged top end comprising a lock hole;

two elastic members respectively coupled between the pegs at said supporting bar and the pegs at said back support;

a back mattress mounted on said back support, said back mattress comprising a mattress body, a hollow mounting bar longitudinally disposed at a back side of said mattress body and pivoted to said back support by a pivot, and two handgrips perpendicularly extended from the hollow mounting bar of said back mattress at two opposite sides;

a fourth lock pin inserted into the lock hole on said flanged top end of said back support and a hole on the mounting bar of said back mattress to lock said back mattress in position;

a headrest unit coupled to said back mattress, said headrest unit comprising a head rest, and a mounting bar fixedly provided at a back side of said head rest and inserted into the hollow mounting bar of said back mattress, the mounting bar of said headrest unit comprising a longitudinal series of lock holes;

a fifth lock pin inserted into a hole on the hollow mounting bar of said back mattress and one of the longitudinal series of lock holes on the mounting bar of said headrest to lock said headrest.

2. The folding collapsible exercising apparatus of claim 1 further comprising two elastic pull cord members respectively fastened to the transverse bar of said front base frame for pulling with the hands, said elastic pull cord members each having hook at one end fastened to a respective locating ring at the transverse bar of said front base frame and a handle at an opposite end.

a base frame having first and second ends;
a footboard coupled to the base frame, approximately at said second end;
a back support having a bottom end pivotally and directly coupled to the base
frame approximately at said first end of said base frame; and
a back mattress mounted on said back support opposite the bottom end of said
back support;
whereby a user of the apparatus positioned with his back pressed against the back
mattress and feet rested on the footboard unit can push his legs to force a pivotal motion
of the back support.

5. The apparatus of claim 3 wherein the first and second ends of the base frame are
slidably connected to one another for adjusting the length of the frame.

a transverse bar perpendicularly connected to at least one end of said base frame,
said transverse bar having rollers at opposite ends of said transverse bar, whereby the
apparatus is freestanding and portable.

7. The apparatus of claim 3 wherein said footboard is pivotally connected to said base

1. The first step is to identify the problem. This involves understanding the current situation and what needs to be changed.

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9. The apparatus of claim 3 wherein said back mattress comprises:

a mounting bar longitudinally disposed at a backside of said mattress body and
ly coupled to said back support, whereby the position of the mattress body is
ble.

11. The apparatus of claim 3 further comprising a headrest unit moveably coupled to said back mattress, whereby the headrest position is adjustable.

12. The apparatus of claim 11 wherein said headrest unit comprises a head rest, and a mounting bar fixedly provided at a back side of said head rest and movably coupled to said back mattress.

13. The apparatus of claim 3 further comprising at least one elastic member for providing movement resistance to the back support thereby increasing the force required to cause said pivotal motion.

14. The apparatus of claim 3 further comprising a seat mounted to the apparatus for facilitating the user in positioning his back against the back support.

15. The apparatus of claim 14 wherein said seat is pivotally mounted on the base frame, whereby said seat can be pivoted towards the base frame when the apparatus is not in use.

16. The apparatus of claim 3 further comprising a pair of elastic pull cords, each attachable to the base frame on one end and having a handle on an opposite end.

17. An exercising apparatus comprising:

a fixed surface for supporting a user's feet; and

a pivoting surface for supporting a user's back;

the fixed and pivoting surfaces connected such that a user of the apparatus

positioned with his back pressed against the pivoting surface, feet rested against the fixed surface, and knees bent at an angle greater than 90° can push against the fixed surface to force a pivotal motion of the pivoting surface.

18. The apparatus of claim 17 wherein said fixed surface comprises a footboard.

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19. The apparatus of claim 17 wherein said pivoting surface comprises a pivoting member and a back mattress coupled to said pivoting member.

20. The apparatus of claim 17 further comprising a base, wherein said pivoting surface is pivotally coupled to one end of said base and said fixed surface is coupled to the base at an opposite end.

21. A method of exercise comprising:

providing an exercise apparatus with a fixed surface for receiving a user's feet and a pivoting surface for receiving the user's back;

repeatedly moving the pivoting surface between first and second positions utilizing mainly the user's lower body muscles,

wherein in said first position, the user presses at least one foot against the fixed surface to cause the pivoting surface to turn, placing the user in said second position,

wherein said user's respective knee is bent at a first angle greater than 90° in said first position, and extended to a second angle, greater than said first angle in said second position.

22. The method of claim 21 wherein in said first position, both of user's feet are pressed against the fixed surface.

23. An exercising apparatus comprising:

a base frame having first and second ends,

wherein the first and second ends of the base frame are slidably connected to one another for adjusting the length of said base frame, said base frame further having a transverse bar perpendicularly connected to at least one end of said base frame, whereby the apparatus is freestanding;

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a footboard coupled to the base frame, at said second end;

a back support having a bottom end pivotally and directly coupled to said base frame at said first end of said base frame;

a back mattress mounted on said back support opposite said bottom end of said back support, said mattress comprising:

a mattress body; and

a mounting bar longitudinally disposed at a backside of said mattress body

and coupled to said back support;

two handgrips perpendicularly extended from the mounting bar of said back mattress at two opposite sides; and

a seat mounted to the apparatus for facilitating the user in positioning his back against the back support;

whereby a user of the apparatus positioned with his back pressed against the back mattress and feet rested on the footboard unit can push his legs to force a pivotal motion of the back support.

24. The apparatus of claim 23 further comprising a tubular member underneath the seat for contacting the base.

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25. The apparatus of claim 23 further comprising two elastic members coupled between the base and back support for providing movement resistance to the back support thereby increasing the force required to cause said pivotal motion.

26. An exercising apparatus comprising:

a base element comprising means for supporting said apparatus wherein said apparatus is freestanding;

a back supporting element comprising means for pivotally securing said back supporting element at one end of said base element, whereby said back supporting element is pivotally moveable with respect to said base element;

a foot supporting element comprising means for securing said foot supporting element to said base element at an end opposite said back supporting element; and

a seat element comprising means for securing said seat element beneath said back supporting element, said seat element facilitating a user of the apparatus in positioning his back against said back supporting element; whereby

the user positioned with his back pressed against said back supporting element and feet rested on said foot supporting element can push his legs to force a pivotal motion of said back supporting element.

27. An exercising apparatus comprising:

base supporting means including means for supporting the apparatus wherein the apparatus is freestanding;

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back supporting means comprising means for pivotally securing said back supporting means at one end of said base supporting means, whereby said back supporting means is pivotally moveable with respect to said base supporting means; foot supporting means comprising means for securing said foot supporting means to said base supporting means at an end opposite said back supporting means; and seating means including means for securing said seating means beneath said back supporting means, said seating means facilitating a user of the apparatus in positioning his back against said back supporting means; whereby the user positioned with his back pressed against said back supporting means and feet rested on said foot supporting means can push his legs to force a pivotal motion of said back supporting means.

28. The apparatus of claim 27, further comprising hand gripping means including means for securing said hand gripping means to said apparatus wherein a user of the apparatus can grip said hand gripping means when positioned on the apparatus.

29. The apparatus of claim 27, further comprising resistance means for providing resistance for said pivotal motion.